WHAT IS CLAIMED IS:

1. A laminated signal line comprising:

two or more layers of non-conducting material;

one or more internal conductors, each of the internal conductors being sandwiched between adjacent ones of the two or more layers of non-conducting material; and

a conductive shield comprising:

a top conductor layer disposed atop the two or more layers of non-conducting material, and

opposed side wall conductors, electrically connected to the top conductor layer;

wherein the opposed side wall conductors are formed on walls of a pair of trenches that are formed through the two or more layers of non-conducting material on opposed sides of the one or more internal conductors.

2. The laminated signal line of claim 1, wherein the conductive shield further comprises:

a bottom conductor layer disposed beneath the two or more layers of non-conducting material, the bottom conductor layer being electrically connected to the top conductor layer and the opposed side wall conductors.

3. The laminated signal line of claim 2, wherein the top conductor layer, the opposed side wall conductors, and the bottom conductor layer are unitarily formed so that the conductive shield surrounds the one or more internal conductors.

4. The laminated signal line of claim 3, wherein the one or more internal conductors and the conductive shield are formed substantially of copper.

5. The laminated signal line of claim 1, wherein the pair of trenches are substantially parallel to one another.

6. The laminated signal line of claim 1, wherein the top conductor layer and the opposed side wall conductors are unitarily formed so that the conductive shield surrounds the one or more internal conductors.

7. The laminated signal line of claim 1, further comprising:

a conductive connection pad connected to one end of one of the internal conductors, the pad being adapted for connection to an electrical device via soldering.

8. A laminated conductive tube comprising:

one or more layers of non-conducting material; and

a shield comprising:

a top conductor layer disposed atop the one or more layers of non-conducting material,

a bottom conductor layer disposed beneath the two or more layers of non-conducting material, and

opposed side wall conductors, electrically connected to the top and bottom conductor layers;

wherein the opposed side wall conductors are formed on walls of a pair of trenches that are formed adjacent one another through the two or more layers of non-conducting material.

9. The laminated conductive tube of claim 8, wherein the top conductor layer, the opposed side wall conductors, and the bottom conductor layer are unitarily formed so that the shield surrounds the one or more internal conductors.

10. The laminated conductive tube of claim 9, wherein the shield is formed substantially of copper.

11. The laminated conductive tube of claim 8, wherein the pair of trenches are substantially parallel to one another.

12. A printed circuit board comprising one or more laminated signal lines, wherein each of the signal lines comprises:

two or more layers of non-conducting material;

one or more internal conductors, each of the internal conductors being sandwiched between adjacent ones of the two or more layers of non-conducting material; and

a conductive shield comprising:

a top conductor layer disposed atop the two or more layers of non-conducting material, and

opposed side wall conductors, electrically connected to the top conductor layer;

wherein the opposed side wall conductors are formed on walls of a pair of trenches that are formed through the two or more layers of non-conducting material on opposed sides of the one or more internal conductors.

13. The printed circuit board of claim 12, wherein the conductive shield further comprises:

a bottom conductor layer disposed beneath the two or more layers of non-conducting material, the bottom conductor layer being electrically connected to the top conductor layer and the opposed side wall conductors.

14. The printed circuit board of claim 13, wherein the top conductor layer, the opposed side wall conductors, and the bottom conductor layer are unitarily formed so that the conductive shield surrounds the one or more internal conductors.

15. The printed circuit board of claim 14, wherein the one or more internal conductors and the conductive shield are formed substantially of copper.

16. The printed circuit board of claim 12, wherein the top conductor layer and the opposed side wall conductors are unitarily formed so that the conductive shield surrounds the one or more internal conductors.

17. The printed circuit board of claim 12, further comprising:

a conductive connection pad connected to one end of one of the internal conductors, the pad being adapted for connection to an electrical device via soldering.

18. The printed circuit board of claim 12, further comprising:

a plated-through hole connected to one end of one of the internal conductors, the plated-through hole being formed through the printed circuit board.

19. A shielded interconnect structure for interconnecting plural devices on a printed circuit board, the shielded interconnect structure comprising:

plural first level conductive traces, disposed on an upper surface of the printed circuit board, each first level conductive trace being adapted for electrical connection to one or more of the plural devices;

plural second level conductive traces, disposed on a buried level of the printed circuit board;

plural micro-vias providing electrical connection from selected ones of the first level conductive traces to selected ones of the second level conductive traces;

one or more third level conductive traces, disposed on a further buried level of the printed circuit board;

plural buried vias providing electrical connection from the third level conductive traces to certain ones of the second level conductive traces;

a conductive shield comprising:

a top shield layer disposed on an upper surface of the printed circuit board,

a conductive side wall, electrically connected to the top shield layer, and

a bottom shield layer, electrically connected to the conductive side wall, buried within the printed circuit board at a level beneath the further buried level;

wherein a trench is formed in the printed circuit board surrounding the first level conductive traces, the second level conductive traces, and the third level conductive traces, the conductive side wall being formed on a wall of the trench.

20. The shielded interconnect structure of claim 19, wherein the top shield layer, the conductive side wall, and the bottom shield layer are formed so that the conductive shield is a unitary Faraday cage surrounding the second level conductive traces and the third level conductive traces.

21. The shielded interconnect structure of claim 19, wherein the conductive shield and the first, second, and third level conductive traces are formed substantially of copper.

22. A method of forming a shielded waveguide in a laminated printed circuit board, the method comprising:

forming a bottom shield layer on a non-conductive substrate;

forming a first non-conductive layer over the bottom shield layer;

patterning an internal conductor atop the first non-conductive layer;

forming a second non-conductive layer over the patterned internal conductor and the first non-conductive layer;

forming a top shield layer atop the second non-conductive layer;

forming a pair of trenches through the first and second non-conductive layers on opposed sides of the internal conductor; and

disposing conductive material on walls of the trenches, extending from the bottom shield layer to the top shield layer.

23. An inductor comprising:

one or more layers of non-conducting material with a pair of trenches formed adjacent one another through the one or more layers of non-conducting material;

a conductive tube, wherein the conductive tube comprises:

a top conductor layer disposed atop the one or more layers of non-conducting material, between the pair of trenches,

a bottom conductor layer disposed beneath the two or more layers of non-conducting material, between the pair of trenches, and

opposed side wall conductors, electrically connected to the top and bottom conductor layers, wherein the opposed side wall conductors are formed on walls of the pair of trenches;

a first end lead formed as an extension of the top conductor layer; and

a second end lead formed as an extension of the bottom side conductor.